# GENERAL INSTRUCTION MANUAL

**Edition 4**

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**Edition 4**

*This manual meets BS EN Standards 14764, 14765, 14766 and 14781.*

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# WELCOME

Thanks for purchasing your Whyte bike. We hope you will enjoy all the benefits its advanced design and engineering will bring to your riding experience.

This manual contains important safety, performance and service information. Accompanying this is a second smaller manual which contains further information that is specific to your particular model of Whyte bike. We strongly recommend that you read both manuals thoroughly and also familiarise yourself with your new bike, before you go on your first ride. Keep the manuals in a safe place for future reference. They will guide you through the necessary procedures involved in using and servicing your bike safely.

**Important! If you have purchased a bike for one of your children, it is essential to take the time to make sure they also understand the information contained in this manual.**

If you are in any doubt about your ability to correctly and safely service or repair your bike, you should neither repair or ride it. Instead, arrange for your local Whyte dealer to do the job safely and correctly.

Please also check that your Whyte dealer has handed over the new bike to you completely assembled and set up to fit you.

A list of authorized Whyte dealers is available online at:

**www.whytebikes.co.uk**

Also bundled with this manual are the respective manufacturers instructions and manuals for the branded parts that go to make up the Whyte bike. In case of a conflict between the instructions in this manual and information provided by a component manufacturer, always follow the component manufacturer's instructions.

Please take time to study both this manual and all the other instruction manuals to ensure you have a continually safe and well set-up bike before every ride, and to help you build up a relationship of knowledge between you and your Whyte dealer.

It is important to understand the basics of riding a bicycle and also to exercise common sense when doing so. Like many recreational, sporting or utility activities, cycling involves risk of injury and damage since it requires reaction to varying dynamic situations. By choosing to ride a bicycle, you assume the responsibility for that risk.

May we wish you happy and safe riding.

*Whyte Design Team*

# BEFORE YOU RIDE

## *Know Your Bike*

There are three types of bikes in the Whyte range. The pictures help to identify the type of bicycle you own:

A mountain bike (MTB) has a "flat" handlebar and wide, knobbly tyres. It may have front suspension, rear suspension, or both. It has either 29", 27.5" (650b) or 26" nominal diameter wheels. See figure 1.

**Fig. 1**

A city bike is a cross between a road bike and an MTB, fitted with a "flat" handlebar and medium-width road tires on 700c or 26" nominal wheel diameters. See figure 2.

**Fig. 2**

A road bike or cyclo-cross bike is fitted with a "drop" handlebar and small-width road tires on 700c wheel diameters. See figure 3.

**Fig. 3**

There are many different components in your Whyte bike. They are identified in figure 4, so as to help you elsewhere in this manual.

**Fig. 4**

## *Fitting*

Your Whyte dealer should have made sure you have the proper size of bicycle adjusted to suit you. If your bike is not the correct size or has not been adjusted correctly, please contact your dealer **BEFORE** you ride it. Used bikes cannot be subsequently exchanged.

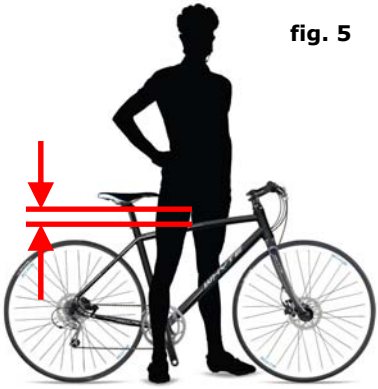

**fig. 5**

*Standover clearance.* When straddling the bike (see figure 5), this is the distance from your crotch to the top-tube in the bicycle's frame. There should be at least 25mm (1") clearance for a road bike and 50mm to 75mm (2" to 3") for a mountain bike. For correct standover clearance please consult your Whyte dealer.

*Saddle position.* Comfortable riding depends on the position of the saddle. Ask your Whyte dealer to set the saddle for your optimal riding position and to show you how to make this adjustment. As a reminder, here it is explained how to adjust the saddle either up or down (see figure 6):

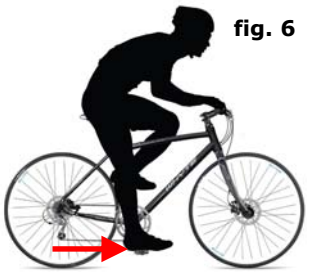

**fig. 6**

- ◊ sit on the saddle.
- ◊ place one heel on a pedal.
- ◊ rotate the crank until the your heel is in the down position.

If your leg is not completely straight, your saddle height needs to be adjusted either up or down until it is.

To adjust the saddle height:

- ◊ loosen the seat post clamp.
- ◊ raise or lower the seat post in the seat tube.
- ◊ make sure the saddle is straight fore and aft.
- ◊ re-tighten the seat post clamp to the recommended torque. Tightening torque values are found in the supplementary manual covering your particular Whyte bike model.
- ◊ Once the saddle is at the correct height, make sure that the seat post does not project from the frame beyond its "Minimum Insertion" or "Maximum Extension" mark (figure 6, black arrow). These marks MUST be hidden in the seat tube.

**WARNING: If your seat post is not inserted in the seat tube as described above, the seat post may break, which could cause you to lose control and fall.**

The saddle may also be adjusted forwards or backwards. Or also re-angled so that the nose of the saddle is either raised upwards or lowered downward. Consult your Whyte dealer about how to carry out these adjustments correctly.

*Handlebar height and angle.* Your bike is equipped with a "threadless" stem (figure 7), which clamps on to the outside of the steerer tube. Your Whyte dealer may be able to change handlebar height by moving height adjustment spacers from below the stem to above the stem, or vice versa. Otherwise, you'll have to get a stem of different length or rise. Consult your Whyte dealer. Do not attempt to do this yourself, as it requires special knowledge.

**fig. 7**

*Control position adjustments.* The angle of the brake and shift control levers and their position on the handlebars can be changed. Ask your Whyte dealer to make the adjustments for you. If you choose to make your own control lever angle adjustment, be sure to re-tighten the clamp fasteners to the recommended torque Tightening torque values are found in the supplementary manual covering your particular Whyte bike model.

*Brake reach.* Brake levers can sometimes be adjusted for reach. If you have small hands or find it difficult to squeeze the brake levers, your Whyte dealer can either adjust the reach or fit shorter reach brake levers.

**WARNING: It is critical to have correctly adjusted brakes, so that full braking power can be applied within the brake lever travel. Otherwise, lack of full braking power can result in loss of control, which may result in serious injury or death.**

## *Pre-Ride Check*

Routinely check the condition of your bicycle before every ride.

- ◊ *Make sure nothing is loose.* Lift the front wheel off the ground by approximately 5cm (2 inches), then let it drop and bounce on the ground. Does anything sound, feel or look loose? Then do a visual and tactile inspection of the whole bike. Can you find any loose parts or accessories? If so, secure them.
- ◊ *Tyre pressure.* Make sure tyres are correctly inflated (see also page 22). Check by pushing the bike down onto the floor, while looking at how the tyre deflects. Compare what you see with how it looks when the tyres are correctly inflated. Adjust the air pressure if necessary.
- ◊ *Tyre condition.* Spin each wheel slowly and look for cuts in the tread and sidewall. Replace damaged tyres, do not ride them.
- ◊ *Wheels are true.* Spin each wheel and check for side-to-side rim movement. If a rim moves side to side even slightly take the bike to a Whyte dealer to have the wheel trued.

**WARNING: Wheels must be true for rim brakes to work effectively.**

- ◊ *Wheel rims*. Ensure the rims are clean and undamaged near the tyre bead. For bikes with rim brakes, check that any rim wear indicator marking is clearly visible at all around the wheel rim.

**WARNING: A rim wear indicator provides an indication that the wheel rim has reached its maximum usable life. Riding a wheel that is at the end of its usable life can result in wheel failure, which can cause you to loose control and fall.**

- ◊ *Brake function*. Squeeze the brake levers. Can you apply full braking force at the levers without having them touch the handlebar? Try to move the bike forwards with the brake levers squeezed. Are the wheels locked? If not, then the brakes are not working properly. Do not ride the bike until you have consulted your Whyte dealer.
- ◊ *Wheels attachment.* Ensure the front and rear wheels are correctly secured to the fork and frame, respectively (See also page 15).
- ◊ *Secure seat post.* If your seat post has an quick-release clamp fastener for easy height adjustment, check that it is properly adjusted and in the locked position (See also page 6).
- ◊ *Handlebar and saddle alignment.* Make sure the saddle and handlebar stem are parallel to the bike's center line and clamped tight enough so that you can't twist them out of alignment. If they are not, do not ride the bike until you have consulted your Whyte dealer.
- ◊ *Handlebar grips are tight.* Twist the handlebar grips to confirm they will not move. Make sure there is a plug in each end of the handlebars.

**WARNING: Loose or damaged stem, handlebars, grips or extensions can cause you to lose control and fall. Unplugged handlebars or extensions can cut you and cause serious injury in an otherwise minor accident.**

- ◊ *Condition of frame, handlebar and stem.* Carefully inspect the frame, handlebars and stem for signs of fatigue: scratches, cracks, dents, deformation, or discoloration. If any part shows signs of damage or fatigue, replace the part before riding the bicycle.
- ◊ *Suspension settings*. Check that the suspension components are adjusted to suit your riding style. Suspension should not be so compressed that there is no further suspension movement remaining, as this could damage your bicycle and make the bike difficult to ride (See page 27).
- ◊ *Condition of reflectors, lights and bell*. For reflectors and lights to work effectively, they must be clean. Check batteries are charged, if fitted in lights. Ring the bell to make sure it works.

## *Load Limits*

**Whyte mountain bikes** are intended for a maximum rider weight of 110 kgs, the overall weight of bike incl. rider should not exceed 119-128kgs (depending on bike weight).

**Whyte road bikes** are intended for a maximum rider weight of 110 kgs, the overall weight of bike incl. rider should not exceed 117-120kgs (depending on bike weight).

## *Registration*

Please register your brand new Whyte bike to activate the extended frame warranty. Without registration, your Whyte frame is covered by a 2 year factory warranty, from date of purchase. If registered you will increase the frame warranty to 4 years. This can be carried out on the Whyte Bikes website www.whytebikes.com

# WHEN YOU RIDE

## *Safety*

**WARNING: It is your responsibility to know and obey all the applicable laws of the area where you ride. Observe regulations about lights, licensing of bicycles, riding on footpaths, laws regulating off-road use, helmet laws, child carrier laws or special bicycle traffic laws.**

fig.8

◊ Always wear a cycling helmet (see fig.8) which meets the latest certification standards and is appropriate for the type of riding you do. Always follow the helmet manufacturer's instructions for fit, use and care of your helmet.

**WARNING: Failure to wear a helmet when riding may result in serious injury or death.**

◊ Complete a recognised training course for cycling, such as those provided by the Cyclists Touring Club. Internet reference http://www.ctc.org.uk/training
◊ Make sure that the bike fits correctly. All controls must be reachable.
◊ Ride a new bike for the first time slowly and away from hazards.
◊ Always use lights at night, both front & rear, and have reflectors installed correctly.
◊ Never ride with two people on a bicycle that's designed for one, unless carrying a child in a specially designed and properly installed child carrier or trailer.
◊ Never hold onto another vehicle when riding.
◊ Mount loads securely. Never carry packages that interfere with either brakes, vision or which could become entangled in the moving parts of the bicycle.
◊ If you intend to do stunts, wheelies, jumps or go racing with your bike, think very carefully about your skill abilities before deciding to take the large risks that go with this kind of riding.
◊ Never ride with headphones. They mask traffic sounds and emergency vehicle sirens, distract you from concentrating on what's going on around you, and their wires can tangle in the moving parts of the bicycle, causing you to lose control.
◊ Never ride your bicycle while under the influence of alcohol or drugs or when extremely tired.
◊ Take extra care when riding in bad weather, when visibility is obscured, at dawn, dusk or in the dark. Any of these conditions increases the risk of an accident.

## *On Road Riding*

◊ Obey all Rules of the Road and all local traffic laws.
◊ You are sharing the road or the path with others — motorists, pedestrians and other cyclists. Respect their rights.
◊ Ride defensively. Always assume that others do not see you.

◊ Look ahead, and be ready to avoid:
  - Vehicles slowing or turning, entering the road or your lane ahead of you, or coming up behind you.
  - Parked car doors opening.
  - Pedestrians stepping out.
  - Children or pets playing near the road.
  - Pot holes, sewer grating, manhole covers, railway lines, expansion joints, road or cycle-path construction, debris and other obstructions that could cause you to swerve into traffic, catch your wheel or cause you to have an accident.
  - Any other hazards and distractions which can occur on a bicycle ride.
◊ Ride in designated bike lanes, on designated bike paths or reasonably close to the edge of the road, in the direction of traffic flow or as directed by local governing laws.
◊ Stop at stop signs and traffic lights; slow down and look both ways at street intersections. Remember that a bicycle always comes off worse in a collision with a motor vehicle, so be prepared to yield even if you have the right of way.
◊ Use approved hand signals for turning and stopping.
◊ Don't weave through traffic or make any moves that may surprise people with whom you are sharing the road.
◊ Observe and yield the right of way.

## *Off Road Riding*

◊ We recommend that children should only ride on rough terrain if they are accompanied by an adult.
◊ The variable conditions and hazards of off-road riding require close attention and specific skills. Start slowly on easier terrain and build up your skills. If your bike has suspension, the increased speed you may develop also increases your risk of losing control and falling. Get to know how to handle your bike safely before trying increased speed or more difficult terrain. Attend a riding skills course presented by a qualified coach.
◊ Wear safety gear appropriate to the kind of riding you intend to do. Consult your Whyte dealer.
◊ Don't ride alone in remote areas. Even when riding with others, make sure that someone knows where you're going and when you expect to be back.
◊ Always take along some kind of identification, so that people know who you are in case of an incident; and take along some cash for food, a cool drink or an emergency phone call.
◊ Yield right of way to pedestrians and animals. Ride in a way that does not frighten or endanger them, and give them enough room so that their unexpected moves don't endanger you.
◊ Be prepared. If something goes wrong while you're riding off-road, help may not be close.
◊ Before you attempt to jump, do stunt riding or race with your bike, read and understand the "Extreme or competition riding" section on page 13.
◊ Obey the local laws regulating where and how you can ride off-road, and respect private property. You may be sharing the trail with others — hikers, equestrians, other cyclists. Respect their rights.
◊ Stay on the designated trail.
◊ Don't contribute to erosion by riding in mud or with unnecessary sliding.

◊ Don't disturb the ecosystem by cutting your own trail or shortcut through vegetation or streams.
◊ It is your responsibility to minimize your impact on the environment. Leave things as you found them; and always take out everything you took in.

## *Adverse Weather Riding*

In wet conditions, the stopping power of your brakes (as well as the brakes of other vehicles sharing the road) is dramatically reduced. Also your tyres cannot grip nearly as well. So it is harder to control speed and easier to lose control. To make sure that you can slow down and stop safely in wet conditions:

◊ ride at a slower speed
◊ apply your brakes earlier and more gradually than you would under normal, dry conditions.

**WARNING: Wet weather reduces traction, braking and visibility, both for the cyclist and for other vehicles sharing the road. The risk of an incident is greatly increased in wet conditions.**

In windy conditions there is a risk that your direction and balance can be adversely affected by strong cross-winds, ie: winds coming from the side.

**WARNING: Take great care when passing gaps between buildings or walls, for example. A sudden increase in cross-wind strength could cause you to loose control and fall.**

**WARNING: In icy conditions riding any type of bicycle is extremely dangerous. The only possible way to obtain sufficient grip is to fit special tyres with metal studs. These may be available from your Whyte dealer.**

## *After Dark Riding*

Riding a bicycle at dawn, dusk or night is *significantly* more dangerous, since then a cyclist is very difficult for motorists and pedestrians to see. Cyclists who chose to accept the increased risk of riding at dawn, dusk or night must take extra care when riding. Safety equipment such as lights and bright reflective clothing helps to reduce that risk. Consult your Whyte dealer about night riding safety equipment.

**WARNING: Reflectors are not a substitute for required lights. Riding at dawn, at dusk, at night or at other times of poor visibility without an adequate bicycle lighting system and without reflectors is dangerous and may result in serious injury or death.**

Bicycle reflectors are designed to pick up and reflect car lights and street lights in a way that may help you to be seen and recognized as a moving cyclist.

**CAUTION: Check reflectors and their mounting brackets regularly to make sure that they are clean, straight, unbroken and securely mounted. Have your Whyte dealer replace damaged reflectors and straighten or tighten any that are bent or loose.**

**WARNING: Do not remove the front or rear reflectors or reflector brackets from your bicycle. They are an integral part of the bicycle's safety system. Removing the reflectors reduces your visibility to others using the roadway. Being struck by other vehicles may result in serious injury or death.**

If you choose to ride under conditions of poor visibility, check and be sure you comply with all local laws about night riding. Take the following strongly recommended additional precautions:

- Purchase and install battery or generator powered front and rear lights, which meet all regulatory requirements and provide adequate uninterrupted visibility.
- Wear light colored, reflective clothing and accessories, such as a reflective vest, reflective arm and leg bands, reflective stripes on your helmet, flashing lights attached to your body and/or your bicycle. Any reflective device or light source that moves will help you get the attention of approaching motorists, pedestrians and other traffic.
- Make sure your clothing or anything you may be carrying on the bicycle does not obstruct a reflector or light.
- Make sure that your bicycle is equipped with correctly positioned and securely mounted reflectors.
- While riding at dawn, at dusk or at night:
  - Ride slowly.
  - Avoid dark areas and areas of heavy or fast-moving traffic.
  - Avoid road hazards.
  - If possible, ride on familiar routes.
- If riding in traffic:
  - Ride predictably. Ride so that drivers can see you and predict your movements.
  - Be alert. Ride defensively and expect the unexpected.
  - If you plan to ride in traffic often, ask your Whyte dealer about traffic safety courses or read a good book on riding a bicycle safely, such as "Cyclecraft", written by John Franklin.

## *Extreme or competition riding*

Whatever you call it - *Freeride, North Shore, Downhill, Jumping, Stunt Riding, Trials, Racing* or something else - if you engage in this sort of extreme, aggressive riding at some point *you **will** get hurt. Y*ou voluntarily assume a greatly increased risk of

injury or death.
Not all bicycles are designed for these types of riding, and those that are may not be suitable for all types of aggressive riding. Check with your Whyte dealer about the suitability of your bicycle before engaging in extreme riding.
When riding fast down hill, you can reach speeds achieved by motorcycles, and therefore face similar hazards and risks. Have your bicycle and equipment carefully inspected by a qualified mechanic and be sure it is in excellent working order. Consult with expert riders, site personnel and race officials on conditions and equipment advisable at the site where you plan to ride. Wear appropriate safety gear. It is your responsibility to have proper equipment and to be familiar with course conditions.

**WARNING: Many catalogues, advertisements and articles about cycling show riders engaged in extreme riding. This activity is highly dangerous. Be aware that the action depicted has been performed by professionals with many years of training and experience. Know your limits and always wear an approved helmet and other appropriate safety gear. Even with state-of-the-art protective safety gear, you could be seriously injured or killed trying to imitate such extreme riding action.**

**WARNING: Cycles and cycle parts have limited strength and integrity. Extreme riding can exceed those limitations and thus cause failure, which might result in serious injury or death.**

We recommend against this type of riding because of the increased risks; but if you do choose to take the risk, at least:

- ◊ Take lessons from a qualified coach first
- ◊ Start with basic learning exercises and gradually develop your skills before trying more difficult or dangerous riding
- ◊ Use only designated areas for stunts, jumping, racing or fast downhill riding
- ◊ Wear a full face helmet, body armour and other safety gear
- ◊ Recognize that the high stresses imposed on your bike by this kind of activity may break or damage parts of the bicycle and void the warranty
- ◊ Take your bicycle to your Whyte dealer if anything breaks or bends. Do not ride your bicycle when any part is damaged.
- ◊ If you ride downhill at speed, do stunt riding or ride in competition, know the limits of your skill and experience. Ultimately, avoiding injury is your responsibility.

**Important! Please use the bike of your choice only for the purpose it was made for. For instance a road racing bike can not be used to substitute a mountain bike in off road terrain or a trekking bike can not be used for downhill racing.**

# HOW THINGS WORK

## *Wheel Removal and Refit*

Wheels are removable for easier transportation or for repair of a tyre puncture. In most cases, the wheel axles are inserted into slots, called "dropouts" in the fork and frame, although some mountain bikes use what is called a "through axle" wheel mounting system.

If you have a mountain bike equipped with through axle front or rear wheels (figure 9), make sure that your Whyte dealer has given you the manufacturer's instructions, and follow those when installing or removing a through axle wheel. If you don't know what a through axle is, ask your Whyte dealer.

**fig. 9**

Otherwise, wheels are secured with a hollow axle with a shaft running through it which has an adjustable tension nut on one end and an over-center cam on the other (figure 10). This is commonly known as a "Quick Release" skewer.

**fig. 10**

Your bicycle may be equipped with a different securing method for the front wheel than for the rear wheel.

**WARNING: Riding with an improperly secured wheel can allow the wheel to wobble or fall off the bicycle, which can cause serious injury or death.**

Therefore, it is essential that you:
Ask your Whyte dealer to help you make sure you know how to install and remove your wheels safely. Also ask for manufacturer's instructions.
Understand and apply the correct technique for clamping your wheel in place.
Each time, before you ride the bike, check that the wheel is securely clamped.
The clamping action of a correctly secured wheel must emboss the surfaces of the dropouts.

## *Front Wheel Secondary Retention Devices*

All Whyte bicycles have front forks which utilize a secondary wheel retention device to reduce the risk of the wheel disengaging from the fork if the wheel is incorrectly secured. Secondary retention devices are not a substitute for correctly securing your front wheel.

Secondary retention devices fall into two basic categories:
The clip-on type is a part which the manufacturer adds to the front wheel hub or front fork.
The integral type is molded, cast or machined into the outer faces of the front fork dropouts.
Ask your Whyte dealer to explain the particular secondary retention device on your bike.

**WARNING: Do not remove or disable the secondary retention device. It serves as a back-up for a critical adjustment. If the wheel is not secured correctly, the secondary retention device can reduce the risk of the wheel disengaging from the fork. Removing or disabling the secondary retention device may also void the fork warranty. Secondary retention devices are not a substitute for correctly securing your wheel. Failure to properly secure the wheel can cause the wheel to wobble or disengage, which could cause you to loose control and fall, resulting in serious injury or death.**

*Wheels with over-centre cam action systems.*
An over-centre cam action clamps the bike's wheel in place. The cam can be seen to move from open to closed in Figures 12, 13 & 11 (in that order).

**fig. 11**

*Adjusting the over-centre cam action mechanism.*
The wheel hub is clamped in place by the force of the over-center cam pushing against one dropout and pulling the tension adjusting nut, by way of the skewer, against the other dropout. The amount of clamping force is controlled by the tension adjusting nut. Turning the tension adjusting nut clockwise while keeping the cam lever from rotating increases clamping force; turning it counterclockwise while keeping the cam lever from rotating reduces clamping force. Less than half a turn of the tension adjusting nut can make the difference between safe clamping force and unsafe clamping force.

**fig. 12**

**WARNING: The full force of the cam action is needed to clamp the wheel securely. Holding the nut with one hand and turning the lever like a wing nut with the other hand until everything is as tight as you can get it will not clamp a cam action wheel safely in the dropouts.**

*Removing and Installing wheels*

**WARNING: If your bike is equipped with a hub brake or internal gear rear hub, do not attempt to remove the wheel. The removal and re-installation of these parts requires special knowledge. Consult your Whyte dealer. Incorrect removal or assembly can result in brake or gear failure, which can cause you to lose control and fall.**

**CAUTION: If your bike has a disc brake, exercise care in**

**touching the rotor or caliper. Disc rotors have sharp edges, and also both rotor and caliper can get very hot during use.**

## *Removing a disk brake or rim brake Front Wheel*

If your bike has rim brakes, disengage the brake's quick-release mechanism to increase the clearance between the tyre and the brake pads. Follow the manufacturer's instructions or ask your Whyte dealer to make sure that you understand the way the brake quick release works on your bike.

If your bike has a Fox or Shimano branded Through Axle retention device, carefullynote the current orientation of the cam lever, since it must be located in the same orientation when refitted.

Move the cam lever at the end of the wheel axle from the locked or CLOSED position (figure 11) to the OPEN position (figure 12).

For a Through Axle retention device (figure 9), unscrew this in an anti-clockwise direction using the cam lever. Once the threads have disengaged, pull it out completely. For a Quick Release Skewer retention device (figure 10) loosen the tension adjusting nut enough to allow removing the wheel from the dropouts. Do not unscrew the tension adjusting nut all the way off the skewer.

You may need to tap the top of the wheel with the palm of your hand to release the wheel from the front fork.

## *Installing a disk brake or rim brake Front Wheel*

**CAUTION: If your bike is equipped with a front disk brake, be careful not to damage the disk, caliper or brake pads when re-inserting the disk into the caliper. Never activate a disk brake's control lever unless the disk is correctly inserted in the caliper.**

### *For a Quick Release Skewer retention device (figure 10):*

Make sure the cam lever is in the OPEN position (figure 12).

With the steering fork facing forward, insert the wheel between the fork blades so that the axle seats firmly at the top of the fork dropouts. Note that the cam lever should be located on the left side of the bicycle (rider facing forwards). Holding the cam lever in the horizontal ADJUST position (half way between OPEN & CLOSED) (figure 13) with your right hand, tighten the tension adjusting nut with your left hand until it is finger tight against the fork dropout.

While pushing the wheel firmly to the top of the slots in the fork dropouts, and at the same time centering the wheel rim in the fork, move the cam lever upwards and swing it into the CLOSED position (figure 11). The lever should now be parallel to the fork blade and curved toward the wheel. To apply enough clamping force, you should have to wrap your fingers around the fork blade for leverage, and the lever should leave a clear imprint in the palm of your hand.

**NOTE:** If the cam lever cannot be pushed all the way to a position parallel to the fork blade, return the lever to the OPEN position (figure 12). Then turn the tension adjusting nut counterclockwise one-quarter turn and try tightening the lever again.

**fig. 14**

**WARNING: Securely clamping the wheel with a cam action retention device takes considerable force. If you can fully close the cam lever without wrapping your fingers around the fork blade for leverage, the lever does not leave a clear imprint in the palm of your hand, and the serrations on the wheel fastener do not emboss the surfaces of the dropouts, the tension is insufficient. Open the lever; turn the tension adjusting nut clockwise a quarter turn and try again.**

If you disengaged the brake quick-release mechanism to remove the wheel, re-engage it to restore correct brake pad-to-rim clearance. Follow the manufacturer's instructions or ask your Whyte dealer to make sure that you understand the way the brake quick release works on your bike.
Spin the wheel to make sure that it is centered in the frame and clears the brake pads; then squeeze the brake lever and make sure that the brakes are operating correctly.

*For a Through Axle retention device (figure 9):*
With the steering fork facing forward, insert the wheel between the fork blades so that the axle seats firmly at the top of the fork dropouts. Note that the brake disk should be located on the left side of the bicycle (rider facing forwards).
Insert the through axle (figure 9) from the right side (SRAM) or left side (Fox / Shimano) until it engages in it's thread.
Make sure the cam lever of the retention device is in the OPEN position (figure 14) and turn the cam lever clockwise until hand tight. If Fox / Shimano then unwind until the cam lever is opposite the location where it was previously unlocked from.
Swing the cam lever into the CLOSED position (figure 15). To apply enough clamping force, you should have to wrap your fingers around the fork blade for leverage, and the lever should leave a clear imprint in the palm of your hand.

**fig. 14**

**fig. 15**

**NOTE:** If the cam lever cannot be pushed all the way to a position parallel to the fork blade, follow the manufacturer's instructions for adjustment or consult your Whyte dealer.

**WARNING: Securely clamping the wheel with a cam action retention device takes considerable force. If you can fully close the cam lever without wrapping your fingers around the fork blade for leverage and the lever does not leave a clear imprint in the palm of your hand, the tension is insufficient.**

If you disengaged the brake quick-release mechanism to remove the wheel, re-engage it to restore correct brake pad-to-rim clearance. Follow the manufacturer's instructions or ask your Whyte dealer to make sure that you understand the way the brake quick release works on your bike.
Spin the wheel to make sure that it is centered in the frame and clears the brake pads; then squeeze the brake lever and make sure that the brakes are operating

correctly.

*Removing a disk brake or rim brake Rear Wheel*

If you have a multi-speed bike with a derailleur gear system: shift the rear derailleur to high gear (the smallest, outermost rear sprocket). If you have an internal gear rear hub, consult your Whyte dealer or the hub manufacturer's instructions before attempting to remove the rear wheel.

If your bike has a Fox or Shimano branded Through Axle retention device, carefully note the current orientation of the cam lever, since it must be located in the same orientation when refitted.

If your bike has rim brakes, disengage the brake's quick-release mechanism to increase the clearance between the wheel rim and the brake pads. Follow the manufacturer's instructions or ask your Whyte dealer to make sure that you understand the way the brake quick release works on your bike.

On a derailleur gear system, pull the derailleur body back with your right hand.

Move the cam lever at the end of the wheel axle from the locked or CLOSED position (figure 10) to the OPEN position (figure 11).

For a Through Axle retention device (figure 9), unscrew this in an anti-clockwise direction using the cam lever. Once the threads have disengaged, pull it out completely. For a Quick Release Skewer retention device (figure 10), unlike the front fork drop-outs, there is no secondary retention device at the rear drop-outs. Consequently it is not necessary to undo the adjusting nut.

Lift the rear wheel off the ground a few inches and remove it from the rear dropouts.

*Installing a disk brake or rim brake Rear Wheel*

**CAUTION: If your bike is equipped with a rear disk brake, be careful not to damage the disk, caliper or brake pads when re-inserting the disk into the caliper. Never activate a disk brake's control lever unless the disk is correctly inserted in the caliper.**

*For a Quick Release Skewer retention device (figure 10):*

Make sure the cam lever is in the OPEN position (see figure 12). The lever should be on the side of the wheel opposite the derailleur and freewheel sprockets.

On a derailleur bike, make sure that the rear derailleur is still in its outermost, high gear, position; then pull the derailleur body back with your right hand. Put the chain on top of the smallest freewheel sprocket.

On single-speed, remove the chain from the front sprocket, so that you have plenty of slack in the chain. Put the chain on the rear wheel sprocket.

Then, insert the wheel into the frame dropouts and pull it all the way in to the dropouts.

On a single speed or an internal gear hub, replace the chain on the chainring; pull the wheel back in the dropouts so that it is straight in the frame and the chain has about 6mm (1/4 inches) of up-and-down play.

With a cam action system, move the cam lever upwards and swing it into the CLOSED position (figure 11). The lever should now be parallel to the seat stay or chain stay and curved toward the wheel. To apply enough clamping force, you should have to wrap your fingers around the seat stay or chainstay for leverage,

and the lever should leave a clear imprint in the palm of your hand.
**NOTE:** If, on a traditional cam action system, the lever cannot be pushed all the way to a position parallel to the seat stay or chain stay, return the lever to the OPEN position. Then turn the tension adjusting nut counterclockwise one-quarter turn and try tightening the lever again.

**WARNING: Securely clamping the wheel with a cam action retention device takes considerable force. If you can fully close the cam lever without wrapping your fingers around the seat stay or chain stay for leverage, the lever does not leave a clear imprint in the palm of your hand, and the serrations on the wheel fastener do not emboss the surfaces of the dropouts, the tension is insufficient. Open the lever; turn the tension adjusting nut clockwise a quarter turn; then try again.**

If you disengaged the brake quick-release mechanism to remove the wheel, re-engage it to restore correct brake pad-to-rim clearance. Follow the manufacturer's instructions or ask your Whyte dealer to make sure that you understand the way the brake quick release works on your bike.
Spin the wheel to make sure that it is centered in the frame and clears the brake pads; then squeeze the brake lever and make sure that the brakes are operating correctly.

*For a Through Axle retention device (figure 9):*
Make sure that the rear derailleur is still in its outermost, high gear, position; then pull the derailleur body back with your right hand. Put the chain on top of the smallest freewheel sprocket.
Then, insert the wheel into the frame dropouts and pull it all the way in to the dropouts.
Insert the through axle (figure 9) from the left side until it engages in it's thread.
Make sure the cam lever of the retention device is in the OPEN position (figure 14) and turn the cam lever clockwise until hand tight. If Fox / Shimano, then unwind until the cam lever is opposite the location where it was unlocked from, whilst removing the wheel.
Swing the cam lever into the CLOSED position (figure 15). To apply enough clamping force, you should have to wrap your fingers around the seat-stay or chain-stay for leverage, and the lever should leave a clear imprint in the palm of your hand.
**NOTE:** If the cam lever cannot be pushed all the way to a position parallel to the fork blade, follow the manufacturer's instructions for adjustment or consult your Whyte dealer.

**WARNING: Securely clamping the wheel with a cam action retention device takes considerable force. If you can fully close the cam lever without wrapping your fingers around the seat-stay or chain-stay for leverage and the lever does not leave a clear imprint in the palm of your hand, the tension is insufficient.**

If you disengaged the brake quick-release mechanism to remove the wheel, re-

engage it to restore correct brake pad-to-rim clearance.
Spin the wheel to make sure that it is centered in the frame and clears the brake pads; then squeeze the brake lever and make sure that the brakes are operating correctly.

## *BRAKES*

The brake system allows you to slow or stop your bike, Which is critical to your safety. There are three general types of bicycle brakes: rim brakes, disc brakes and internal hub brakes. All three can be operated by way of a handlebar mounted lever.

It's very important to your safety that you learn and remember which brake lever controls which brake on your bike. In the UK, the right brake lever controls the front brake and the left brake lever controls the rear brake. In most other countries of the world the right brake lever controls the rear brake and the left brake lever controls the front brake. So to be sure exactly how your bike's brakes are set up, squeeze one brake lever and look to see which brake, front or rear, engages. Now do the same with the other brake lever.

**CAUTION: Consult the brake manufacturer's instructions or your Whyte dealer for operation and care of your brakes. If you do not have the manufacturer's instructions, contact your Whyte dealer or the manufacturer (see the supplementary service manual for contact details).**

**MULTIPLE WARNING:**

- **Check to make sure both brakes work correctly, every time before you get on the bike.**
- **Riding with improperly adjusted brakes, worn brake pads, or wheels on which the rim wear mark is visible is dangerous and can result in serious injury or death.**
- **All new brakes require some time to wear in to develop full stopping power, so ride with extra care with new brakes.**
- **Some bicycle brakes, such as disc brakes (figure 16) and linear-pull brakes (figure 17), are extremely powerful. Take great care when using them.**
- **Applying brakes too hard or too suddenly can lock up a wheel, which could cause you to lose control and fall, which may result in serious injury or death.**
- **Never use the front brake on it's own. To prevent skidding always use both brakes simultaneously.**

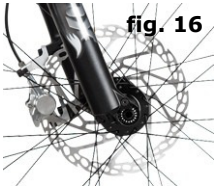

**fig. 16**

**fig. 17**

- ◊ **Riding in wet weather may increase the braking distance by up to 60%. Ride slower & apply the brakes earlier.**
- ◊ **Disc brakes can get extremely hot with extended use. Be careful not to touch a disc brake until it has cooled.**
- ◊ **If replacing worn or damaged parts, use only manufacturer-approved genuine replacement parts.**

## *Tyres & Inner Tubes*

### *Tyre Inflation*

Inflate your tyres to within the air pressure recommended on the tyre sidewalls (for an example, see figure 18). When inflating a tyre, consider the weight of the rider and any load being carried. Higher pressure usually gives the best performance on road surfaces (for speed), while lower pressure works best for off-road riding (for grip).

**30 – 80 PSI (2.5 – 5.5 BAR)**

**Fig. 18**

**WARNING: Never inflate a tyre above the maximum pressure marked on the tyre's sidewall. Exceeding the recommended maximum pressure may blow the tyre off the rim, which could cause damage to the bike and injury to the rider and bystanders.**

The best and safest way to inflate a bicycle tyre to the correct pressure is with a bicycle pump which has a built-in pressure gauge, available from your Whyte dealer.

**WARNING: There is a safety risk in using air compressors that are intended for motor vehicle tyres. These move a large volume of air very rapidly, which could cause the tube to explode.**

**WARNING: A tyre pressure that is too low can allow the tyre to deform sufficiently and pinch the inner tube, possibly splitting it. The subsequent deflation may be rapid, possibly causing you to lose control and fall.**

For regular riding most tyres may need to be brought up to pressure every week or two. If the bike is being stored for a long time, preserve the tyres by deflating to the minimum pressure shown on the sidewall and keep them away from sunlight.

**CAUTION: Always check your tyre pressures before every ride.**

### *Replacing Tyres*

Tyres are available in many different types. Having ridden your new bike or having worn out the tyres, if you feel that a different tyre might better suit your riding needs, your Whyte dealer can help you select the most appropriate replacements.

**WARNING: There are two reason why you must replace a**

**worn tyre:**

- ◊ **When the tread is worn so thin that there are frequent punctures from small pieces of debris, or so the inner fabric shows through the tread, for example see figure 19.**
- ◊ **When the tyre's fabric has been damaged, so that the tyre has a lumpy, irregular appearance somewhere, or so that the inner tube bulges through the tread, for example see figure 20.**

**Fig. 19**

**Fig. 20**

Note that the tyre size is shown on the tyre sidewalls (for an example, see figure 21). This information is important when purchasing correct replacements.

**57 – 559 (26 X 2.125)**

**Fig. 21**

Some special high-performance tyres have unidirectional treads: their tread pattern is designed to work better in one direction than in the other. The sidewall marking of a unidirectional tyre will have an arrow showing the correct rotation direction. (for an example, see figure 22). If your bike has unidirectional tyres, be sure that they are mounted to rotate in the correct direction.

**ROTATING DIRECTION**

**Fig. 22**

**CAUTION: Consult the tyre / inner tube manufacturer's instructions or your Whyte dealer as to how to replace those items. If you do not have the manufacturer's instructions, contact your Whyte dealer or the manufacturer (see the supplementary service manual for contact details).**

*Tyre Valves*

The bicycle pump you use must have the fitting appropriate to the valve stems on your bicycle. There are two kinds of bicycle tube valves:

- ◊ The Schraeder Valve (figure 23) is like the valve on a car tyre. To inflate a Schraeder valve tube, remove the valve cap and clamp the pump fitting onto the end of the valve stem. To let air out of a Schraeder valve, depress the small pin in the end of the valve stem.
- ◊ The Presta valve (figure 24) is only found on bicycle tyres. Inflate using a Presta headed

**Fig. 24**

**Fig. 23**

bicycle pump by remove the valve cap, unscrew anti-clockwise the small lock nut (arrowed) and push down on the valve stem to free it (that will also let air out of the tube). Then push the pump head on to the valve head, and inflate. Then re-tighten the lock nut and replace the cap.

# *TRANSMISSION*

## *Changing Gear*

Your multi-speed bicycle may have a derailleur transmission (figure 25), an internal gear hub transmission (figure 26) or possibly, in some special cases, a combination of the two. The transmission will already have been adjusted by your Whyte dealer. Therefore, no readjustment will be necessary to begin with. However, it is advisable to check the adjustment of the gear change mechanism regularly, particularly since wire cables can stretch slightly during early use, so these may require re-adjustment by your Whyte dealer.

**Fig. 25**

**Fig. 26**

For more information concerning the transmission, please read carefully the separate manual from the transmission manufacturer or consult your Whyte dealer.

## *Which gear should I be in?*

For derailleur gears, the combination of largest rear and smallest front gears (figure 27) is for the steepest hills.

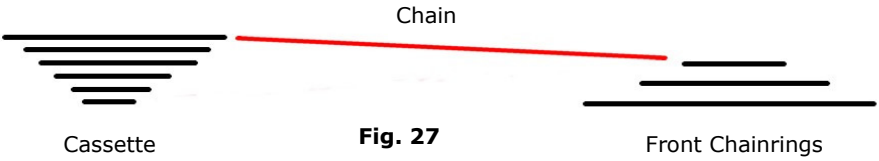


**Fig. 27**

The smallest rear and largest front combination (figure 28) is for the greatest speed.

**Fig. 28**

**WARNING: Never shift a derailleur onto the largest or the smallest sprocket if the derailleur is not shifting smoothly. The derailleur may be out of adjustment and the chain could jam, causing you to lose control and fall.**

**CAUTION: Never move the derailleur shifter while pedaling backward, nor pedal backwards immediately after having moved the shifter. This could jam the chain and cause serious damage to the bicycle.**

For internal gear hub transmission, on the indicator near the thumb lever the gear indicated "1" is for the steepest hills. The numerically largest gear is for the greatest speed.

### *Extreme gear combinations*

This concerns transmissions with three front chainrings.

**CAUTION: To avoid excessive noise, wear and damage of the derailleur transmission, we advise not to use these gear combinations:**

Largest chain wheel – largest sprocket (figure 29)

**Fig. 29**

Smallest chain wheel – smallest sprocket (figure 30)

**Fig. 30**

## *Pedals*

### *Toe Overlap.*

Place your foot in a pedal, keep your foot horizontal and turn the crank as far forward as it will go. Now turn the handlebars so that the front wheel is near the front of your foot. If they touch, this is known as toe overlap. It is common on small-framed bicycles. It is avoided by keeping the inside pedal up and the outside pedal down when making sharp turns. On any bicycle, this technique will also prevent the inside pedal from striking the ground in a turn.

**WARNING: Toe overlap could cause you to lose control and fall. Ask your Whyte dealer to check for toe overlap. Replacement of crank arms or tyres can create a toe overlap problem. Whether you have overlap or not, it is strongly advised to keep the inside pedal up and the outside pedal down when making sharp turns.**

### *Sharp edges.*

Some bicycles come equipped with pedals that have sharp and potentially dangerous surfaces. These surfaces are designed to add safety by increasing grip between the rider's shoe and the pedal. If your bicycle has this type of pedal, you must take extra care to avoid serious injury from the pedals' sharp surfaces. Your Whyte dealer can show you several ways to reduce the risk of injury.

### *Toeclips and straps.*

These are a long established way to keep feet correctly engaged on the pedals. The toeclip positions the ball of the foot over the pedal spindle, which gives maximum pedaling power. The toe strap, when tightened, keeps the foot engaged throughout the rotation cycle of the pedal. Toeclips and straps work most effectively with special cycling shoes designed for use with toeclips. Should you wish to use them, ask your Whyte dealer how toeclips and straps work. Certain shoes, such as those with deep treaded soles, should not be used with toeclips and straps, if they make it difficult to remove your foot.

**WARNING: Getting into and out of pedals with toeclips and straps requires a particular skill. This can only be acquired with practice. The technique can distract your attention and cause you to lose control and fall. Practice the use of toeclips and straps where there are no obstacles, hazards or traffic. Keep the straps loose to begin with. Only tighten them once you have a very good technique and confidence for getting in and out of the pedals. Never ride in traffic with your toe straps tight.**

### *Other pedals types.*

There are several other ways how your shoes can be engaged on the pedals. Given that range of choice, we do not fit pedals to most of the Whyte bike range. Instead, consult your Whyte dealer for advice on which type of pedal will suit your riding style. Be sure to follow the pedal manufacturer's setup and service instructions.

## *SUSPENSION*

### *Front Fork.*

For detailed instructions about set up, servicing and all other matters relating to the fork, please refer to the manufacturers instructions. If you do not have the manufacturer's instructions, see your Whyte dealer or contact the manufacturer (see the supplementary service manual for contact details).

### *Rear Shock.*

For customised rear shock tuning information, please refer to the supplementary manual covering your particular Whyte full suspension bike. For detailed instructions about set up, servicing and all other matters relating to the rear shock, please refer to the manufacturers instructions. If you do not have the manufacturer's

instructions, see your Whyte dealer or contact the manufacturer (see the supplementary service manual for contact details).

Please note that a great deal of expertise has been put in to refine the Whyte bicycle suspension system, such that it provides performance, safety, comfort and enjoyment. To obtain this in full, the front fork and rear shock must be correctly adjusted.

# AFTER YOUR RIDE

## *CARE & MAINTENANCE*

### *General*

For your safety, performance and enjoyment it's important to understand how to look after your bicycle.

If you want to learn to do major service and repair work on your bike:

- ◊ If you don't already have copies of the manufacturer's instructions for the components on your bike, ask your Whyte dealer for these or contact the component manufacturer (see the supplementary service manual for contact details).
- ◊ Ask your Whyte dealer to recommend a book on bicycle repair.
- ◊ Ask your Whyte dealer about the availability of bicycle repair courses in your area.

It is recommended that you ask your Whyte dealer to check the quality of your work the first time you work on something and before you ride the bike. This is to make sure that everything was done correctly. Since that will require the time of a professional mechanic, there may be a modest charge for this service. A small price to pay for peace of mind.

We also recommend that you also ask your Whyte dealer for detailed guidance on what spare parts it would be appropriate for you to purchase, once you have learned how to replace such parts. Typically spare parts would include tyres, inner tubes, control cables and brake pads.

If you have the slightest doubt as to whether you understand something in this Manual then consult your Whyte dealer.

**MULTIPLE WARNING:**

- ◊ **This manual provides much of the information required to maintain your bicycle. However any repair or maintenance which is not shown in this manual must be done by your Whyte dealer.**
- ◊ **Maintenance requirements will vary depending on factors like your riding style or your geographic location. Consult your Whyte dealer for help to determine an effective maintenance schedule.**
- ◊ **Special knowledge and tools are required for many bicycle service and repair tasks. These are NOT included in this manual. Do not begin any such work on your bicycle until you have learned how to do this properly by following the recommendations for learning made above. Improper adjustment may result in damage to the bicycle or an incident which could cause serious injury or death.**

## *Take care of your bike*

*Keep your bicycle clean.* To work properly, your bicycle must be cleaned with a soft, damp cloth and bike cleaner. Avoid using pressure washers as they can force water past sealed joints, causing premature mechanical wear. For reflectors and lights to work effectively, they must be cleaned regularly.

*Avoid leaving your bicycle out in the weather.* When not riding, store your bike where it will be protected from rain, snow, sun, etc. Rain or snow may cause the metal on your bicycle to corrode. Ultraviolet radiation from the sun may fade the paint, or crack any rubber or plastic on the bicycle.

*Use proper storage for your bicycle*. Before storing your bike for an extended period of time, clean and lubricate it, and polish the frame with a polishing protectant. Hang the bicycle off the ground with the tyres at the minimum pressure on the side-wall. Do not store the bike near electric motors. These generate ozone which de-generates rubber and paint. Before riding the bicycle again, be certain it is in good working order by carrying out the pre-ride check on page 8. If there is any doubt about whether it is safe to ride, take it to your Whyte dealer for inspection.

*Protect your bicycle from theft.* Your new bicycle will be very attractive to bike thieves. To help protect yourself from theft:

- ◊ Register the bicycle with your local police department.
- ◊ Make sure you register your bike online at www.whytebikes.com, see page 9. We will keep the serial number of your bike on file. Also, keep a record of the serial number in a safe place. The serial number is stamped into the outside of the bottom bracket shell, for frames not made from carbon fibre. See figure 31. For frames made from carbon fibre, the serial number is on a label that is affixed in the same region of the frame.
- ◊ Purchase and use a lock. A good lock is effective against bolt cutters and saws. Follow the recommended locking procedures. Use your lock; never leave your bike un-locked while unattended, not even for a minute.
- ◊ With wheels located with quick-release skewer - reference figure 10 on page 15, or a through axle - reference figure 9 on page 15, lock both of your wheels as well as your frame.
- ◊ If you have a quick-release seatpost clamp, when locking your bike you should remove your seat and seatpost to prevent theft. However, avoid allowing water to enter your bicycle frame through the open seat tube of your bike.

**Fig. 31**

*Protect your bike from accidental damage*. Here are just a few of the potential hazards you and your bike may encounter:

- ◊ Park or store your bike in a place where it will be out of the way.
- ◊ Do not lay the bike on its rear-derailleur, as that could bend it.
- ◊ Don't let the bike fall down, as this may damage the handlebars, the grips, the pedals or the seat.
- ◊ Incorrect use of bike racks may bend your wheels, as can riding over some obstacles.

If you suspect your bicycle has been damaged in any way, or has been tampered with, carry out the pre-ride check on page 8. If there is any doubt about whether it is safe to ride, take it to your Whyte dealer for inspection.

*Use good shifting methods.* Refer to the Transmission section on page 24.

*Prevent handlebar impact damage to your frame.* With some bicycles, as the front wheel turns to extreme angles, the handlebar may contact the frame. Prevent damage from handlebar impact by padding the handlebar parts, the frame, or both, at the points of contact. See your Whyte dealer for recommended protection devices or materials.

*Never modify your fork, frame, or components.* Modifying the parts of your bike in any way, including the frame, fork, and all the components, may make your bike unsafe. As an example, some bike frames have special surface treatments which add strength; these could be removed through poor paint stripping techniques.

Changing the forks on your bicycle could alter the steering of the bicycle, or increase the risk of your frame cracking.

**Never add a suspension fork to a road bike**

**Most models are not compatible with dual crown / triple-clamp forks**.

If you must replace the fork on any bike, check with your Whyte dealer or ATB Sales Ltd technical service department to ensure the new forks are compatible with the frame. Any modification of your frame, fork, or components means that your bike no longer meets our specifications and will therefore void the bike's warranty.

**WARNING: Never modify your bike in any way, including sanding, drilling, filing, removing redundant retention devices, installing incompatible forks. An improperly modified frame, fork, or component can cause you to lose control and fall.**

## *Maintenance Schedule*

Much maintenance can and should be performed by a competent owner. That requires no special tools or knowledge beyond what is presented in this manual. All other service, maintenance and repair should be carried out by a qualified bicycle mechanic using the correct tools and procedures specified by the manufacturer.

**WARNING: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail possibly causing injuries to the rider. Any form of crack, scratches, fraying or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.**

## *Break-in period*

Your Whyte bike will last longer and work better if you gradually break it in before riding it hard. For example, control cables and wheel spokes may stretch or "seat" when a new bike is first used and these may require re-adjustment by your Whyte dealer. A good time for this is after five hours of off-road use, or about 15 hours of on-road use. However, at any time if you think something is wrong with the bike, take it to your Whyte dealer before riding it again.

## *Before every ride:*

Carry out the Pre-ride Check described on page 8.

## *After every long or hard ride:*

If the bike has been exposed to water, grit or mud. Or at least every 100 miles.

- ◊ Clean the bike (see page 29)
- ◊ Lightly lubricate the chain with a good quality bicycle chain lubricant.
- ◊ Rotate the transmission and by changing the gears, get the chain to run briefly on all available sprockets. This will also lubricate them and prevent corrosion.
- ◊ Wipe off excess lubricant with a lint-free cloth.

Talk to your Whyte dealer about the best lubricants and the recommended lubrication frequency for your area. Avoid contaminating the rims or brake discs with lubricant!

## *After every 10 (off-road) to 20 (on-road) hours of hard riding:*

(for much of this check it is recommended to hold the bike in a workstand)

- ◊ Make sure the stem is in alignment with the front wheel. Test the stem connection to the fork by attempting to turn the handlebars from side to side with the front wheel locked between your knees.
- ◊ Test the security of the handlebars by attempting to rotate them in the stem.
- ◊ Make sure that no cables are stretched or pinched by rotating the handlebars left to right and back.
- ◊ Check that all bolts in the stem are tight. The correct fastener torque varies according to the type of stem on your bike and is usually marked on it. If you are unsure of which type of stem your bike is equipped with, see your Whyte dealer or contact the manufacturer (see the supplementary service manual for contact details).
- ◊ Check the attachment of the seat and seatpost (see page 6). Your bicycle may be equipped with a suspension seat post or adjustable height seat post. If so, ask your Whyte dealer for recommended service intervals for the mechanism.
- ◊ Squeeze each adjoining pair of spokes on either side of each wheel between your thumb and index finger. Do they all feel about the same? If any feel loose, ask your Whyte dealer to check the wheel for tension and trueness.
- ◊ Check the operation of the left gear lever(s) / front derailleur. First, whilst turning the transmission quite fast, move the lever so that the chain drops from the largest chain-ring to next one down. If there is third chain-ring, move the gear lever again so that the chain drops onto that chain-ring. After each shift, by moving the shifter slightly, you may be able to position the front derailleur such that it does not rub on the chain. Then move the gear lever so that the chain climbs up onto the next largest chain-ring and again, if there is a third (largest)

chain-ring. These changes should be smooth, occur without hesitation, be fairly quiet and also the chain must not fall off the inner-most or outer-most chainrings at any time. If not then the assembly may be wrongly adjusted or worn out. If this is the case, get your Whyte dealer to service it.

◊ Check the operation of the right gear lever(s) / rear derailleur. First, whilst turning the transmission quite fast, move the lever so that the chain drops from the largest rear sprocket to next one down. Continue moving the gear lever repeatedly through all the other smaller rear sprockets. Then move the gear lever so that the chain climbs up onto the next largest sprocket and again until the chain reaches the largest sprocket again. These changes should be smooth, occur without hesitation, be fairly quiet and also the chain must not fall off the inner-most or outer-most sprockets at any time. If not then the assembly may be wrongly adjusted or worn out. If this is the case, get your Whyte dealer to service it.

◊ Carefully check the brake & transmission control cables and cable housings. Any rust? Kinks? Fraying? If so, have your Whyte dealer replace them.

◊ Lubricate all pivot points on both the front and rear derailleurs, including the derailleur pulleys on the rear derailleur. Avoid contaminating the rims or brake discs with lubricant!

◊ Squeeze the front brake and rock the bike back and forth. If a noise can be heard from the vicinity of the headset, then it may be loose. Have your Whyte dealer check it.

◊ Holding the handlebars, lift the front wheel off the ground and turn it from side to side. Does it turn smoothly? If not and you feel any binding or roughness, headset may be tight. Have your Whyte dealer check it.

◊ Check the brake pads. Are they getting thin compared with new ones? (look a picture on the internet or parts catalogue). If so then have your Whyte dealer replace the brake pads.

- Rim brake: Are the pads not touching the wheel rim squarely? If so then have your Whyte dealer adjust the brake pads.
- Hydraulic disc brake: do the pads touch the disc when the wheel is rotated and the brake lever is not operated? Then the disc may be damaged or warped by heat, or the brake calliper may need servicing. In each case, contact your Whyte dealer for help.

◊ Check tightness of fasteners that retain brake levers, brake callipers and for disc brakes, the disc rotors. Tightening torque values are found in the supplementary manual covering your particular Whyte bike model.

◊ Grab one pedal and rock it toward and away from the centerline of the bike; then do the same with the other pedal. Anything feel loose? If so, ask your Whyte dealer to check it.

◊ Check the tires for excess wear, cuts or bruises (see page 22). Get your Whyte dealer to replace them if necessary.

◊ Check the wheel rims for excess wear, dings, dents and scratches. Consult your Whyte dealer if you see any rim damage.

◊ Check to make sure that all parts and accessories are still secure, and tighten any which are not. Tightening torque values are found in the supplementary manual covering your particular Whyte bike model.

◊ Check the frame (particularly around all tube joints); the handlebars; the stem; and the seat post for any deep scratches, cracks or discoloration. These are

signs of stress-caused fatigue and indicate that a part is at the end of its useful life and needs to be replaced. Consult your Whyte dealer if you see anything out of the ordinary on these parts.

◊ Check tightness of fasteners that retain rear dropouts, where applicable. Tightening torque values are found in the supplementary manual covering your particular Whyte bike model.

**WARNING: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail possibly causing injuries to the rider. Any form of crack, scratches, fraying or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.**

*Every 25 (off-road) to 50 (on-road) hours of hard riding, or after 6 months:*
Arrange to take your bike to your dealer for a full service.

*Every 2 years:*
The lightweight Handlebars fitted to the bicycle MUST be replaced periodically as in time they will possibly fail due to fatigue. We recommend a maximum of 2 years between replacements, less time if you ride aggressively.

## *After a crash*

Check yourself for injuries. Take care of them as best you can. If necessary, seek medical help. An apparently minor incident could have major implications later on. After a minor crash, check your bike for damage by doing a pre-ride check, page 8. After a major crash, have your Whyte dealer do a thorough check over your bike.

**Warning: Carbon composite components, including frames, wheels, handlebars, stems, cranksets, brakes, etc. which have sustained an impact *must not* be ridden until they have been disassembled and thoroughly inspected by a qualified mechanic.**

## *Recommended tools & spares for regular maintenance:*

- ◊ Torque wrenches with lb•in or Nm gradations from 3 Nm to 15 Nm and also from 10 to 60 Nm (Nm = Newton Metres). Plus 2, 2.5, 4, 5, 6, 8 & 10mm hexagonal inserts.
- ◊ High pressure low volume air pump (for rear shock or suspension fork).
- ◊ 2, 2.5, 4, 5, 6, 8 & 10 mm allen keys.
- ◊ T25 & T10 Torx key.
- ◊ 8, 10 & 15mm open-end spanners.
- ◊ No. 1 Phillips head screwdriver.
- ◊ Bicycle chain splitter tool.
- ◊ Bicycle tyre levers.
- ◊ Bicycle tyre pump with pressure gauge.
- ◊ Bicycle spoke key.
- ◊ Spare bicycle inner tubes* & tyres*.
- ◊ Spare brake pads / blocks*.
- ◊ Spare "Power-link" chain link**.
- ◊ Spare control cables.
- ◊ Synthetic bicycle chain lube.
- ◊ Synthetic bicycle grease.
- ◊ Frame polishing protectant.

* These spares are specific to the specification of your bicycle, make sure you order the correct size & specification of replacements, manufactured by the original equipment manufacturer.

** Check compatibility prior to purchasing.

*Notes*

# *Notes*

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# WHYTE BIKES WARRANTY

Note: this warranty does not affect your statutory rights

ATB Sales Ltd warrants your new Whyte bike frame to be free from defects in materials and workmanship for a period of five years from the date of delivery, solely for the original owner.

This limited warranty is subject to the following conditions:

1. The bike must be supplied fully assembled from an official dealer's premises.
2. The instructions for use, maintenance and cleaning of the frame must be followed and all usual precautions to protect the frame from the elements must be taken at all times as the frame may suffer damage if it is neglected or not properly maintained and cleaned
3. Normal wear and tear, crash damage or accidental damage is excluded from this warranty
4. This warranty will not apply to frames which have been improperly assembled; or modified; or have had parts or accessories fitted which are not compatible with the frame.
5. Repainting or re-lacquering a metal frame will invalidate the warranty where the process involves heating the frame to over 180 Celsius. Repainting or re-lacquering a carbon frame will invalidate this warranty altogether.
6. This warranty will not apply frames used for racing, jumping, trick riding or any other non standard use
7. This warranty does not include any liability for indirect or consequential loss or damage and such is expressly excluded
8. This warranty does not cover labour charges incurred in changing over parts or the cost of carriage
9. Claims under this warranty must be reported in writing by the first registered owner to ATB Sales Ltd and the frame delivered to one of its authorised dealers within the period of this warranty
10. Whyte Bikes decline all responsibility for damages to people, animals or objects due to the use of this product

## *IMPORTANT INFORMATION*

Before use, it is essential that the rider is familiar with the safe operation of this bike. Please read carefully all the supplied documentation before use of this bike. If you have any questions, please contact your retailer.

## *BEFORE FIRST USE*

Make sure the bike is set up correctly for you. The saddle needs to be set at the correct height for safe use. If the saddle is too high or too low, you will put too much stress on your legs and knees. Sit on the bike with both feet on the pedals. Pedal backwards and stop with your right leg perpendicular to the ground (at this

point the crank is in the 6 O'Clock position. With the ball of the foot centred on the pedal, the rider should have a slight bend in their right knee. There is a maximum height that you can extend your saddle to, which is marked on the seatpost - Do not raise the seatpost beyond this mark.

## *BEFORE EVERY RIDE*

All bicycle frames and components have a finite life. How long they last is dependant on use and levels of maintenance. It is essential, especially with a high performance bike such as this, that before every ride the bike is inspected for any visible signs of damage and any problems rectified before use. Check the frame stem and bars and other components for signs of damage or cracking. Check that both wheels are securely in place. Make sure the Quick Release mechanism that holds the seatpost in place is securely fastened. Check your brakes. Roll the bike forward and squeeze the levers - the pads should grip the disc or the rim without the levers touching the grips. Check that the wheels and tyres are in good shape. Any heavily worn tyres should be replaced and any missing or loose spokes replaced before use. Make sure the wheels run true.

## *AFTER EVERY RIDE*

Keeping your bike clean is an important part of its regular maintenance. Avoid high pressure jet washes as these can remove grease from bearings and dramatically reduce the life of components. It's best to clean your bicycle by hand. Gently remove mud and dirt with water before proper cleaning otherwise the grit will damage the paintworks.

## *REGULAR MAINTENANCE*

Regular Maintenance is essential to guarantee the safe operation of your Whyte bike.

Lubrication: Check all the moving parts of your bike, especially the chain. Check the chain for wear and damaged or tight links regularly. Keep the chain lubricated with 3 in 1 oil with PTFE, or similar. Apply the lubricant to the internal parts of the chain. Avoid contaminating the brake discs or pads with lubricant. This will stop the brakes working effectively.

Adjustments: Watch your gears for symptoms of shifting problems. If shifting becomes noisy or difficult, or dumps the chain off the chainrings, adjustment is necessary. Make sure the derailleurs are correctly aligned and that gear cables are not kinked or frayed. Get your bike regularly serviced by your dealer - at least one service every 6 months, or whenever you feel performance reducing.

## *EVERY TWO YEARS*

The lightweight Handlebars supplied on your bike MUST be replaced periodically as in time they will possibly fail due to fatigue. We recommend a maximum of 2 years between replacements, less if you ride aggressively.

## *SAFETY WHEN RIDING*

Observe the rules of the road or trail and remember that riding in the wet or on mud, ice or other loose surfaces greatly increases stopping distances.

www.whytebikes.co.uk